# AC/DC Current Probe
# Model MR520

The AEMC® MR Series AC/DC Probes are professional AC/DC current probes designed to extend current measuring capabilities of DMMs, oscilloscopes and other instruments. They are built to the latest safety and performance standards, including the CE Mark and UL approval. Two different hook-shaped jaws are offered, both permitting the user to "pry" or "hook" onto cables (will accept 2 x 500MCM) or even onto small bus bars.

The MR Series probes use Hall effect technology and measure AC and DC current. The electronics and batteries are self-contained in the handles. The output of the AC/DC probes is 1mV/A and 10mV/A. The Model MR520 measures to 1000AAC/1500AAC.

There is no output filtering — True RMS with DC component measurements are possible. Phase shift is excellent, making the MR Series of current probes well suited for power and power quality applications.

## Features

- Measurement range of 400AAC/600ADC
- Measurement range of 1000AAC/1500ADC
- Distinct jaw shapes to be used for hooking or prying around the conductor
- Auto-zero push button
- Conforms to EN 61010, 600V, Cat. III safety standard
- Low phase shift for power measurements
- mV output signals
- Designed for DMMs, recorders, oscilloscopes, power and harmonic meters
- Double Insulation
- CE Mark

## Applications

- DC motors
- Batteries
- Automobile engine testing
- Power measuring quality analysis
- Power load monitoring

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## Specifications

| MODEL | MR520 |
|---|---|
| **ELECTRICAL** | |
| Nominal Range | 1000AAC/1500ADC |
| Measurement Range | 1 to 1500A |
| Output Signal | 1mV/A |
| Accuracy (1500ADC Range)<br>1 to 100A | 1.5% of Reading ± 1A |
| 100 to 800A | 2.5% of Reading |
| 800 to 1000A | 4% of Reading |
| 1000 to 1400ADC only | 4% of Reading |
| Phase Shift (1500A Range)<br>10 to 200A | 45 to 65Hz: ±2.5° |
| 200 to 1000A | ≤1.5° |
| Overload | 1000AAC and 1500ADC continuous up to 1kHz |
| Frequency Range | DC to 10kHz @ -3dB |
| Load Impedance | >100kΩ/100pF |
| Working/Common Mode Voltage | 600Vrms |
| Battery | 9V Alkaline<br>(Approx. 120 hours life) |
| Output Termination | 5 ft Lead |
| **MECHANICAL** | |
| Operating Temperature | 14° to 131°F (-10° to 55°C) |
| Storage Temperature | -40° to 176°F (-40° to 80°C) |
| Operating Relative Humidity | 10 to 35°C 90% ± 5% RH (without condensation), 40 to 55°C 70% ± 5% RH (without condensation) |
| Zero Adjustment | 10 turn knob at base of case |
| Jaw Opening | 1.55" (40mm) |
| Maximum Conductor Size | One 1.5" (39mm) or two 0.95" (24mm) or two bus bars 1.96 x 0.19" (50 x 5mm)<br>or one bus bar 1.96 x 0.49" (50 x 12.5mm) |
| Dimensions | 9.31 x 3.82 x 1.73" (236 x 97 x 44mm) |
| Weight | 1.06 lb (480g) |
| Polycarbonate Material | Handles: Polycarbonate + ABS, Gray, UL94 V0. Jaws: Polycarbonate, Red, UL94 V0 |
| **SAFETY** | |
| Electrical | EN 61010-2-32 |
| Double Insulation ⧈ | Yes |
| CE Mark | Yes |

*Note: Reference conditions: 18°C to 28°C, 20 to 75% RH, external magnetic field <40A/m, no DC component, no external current carrying conductor, test sample centered, 1MΩ ≤100pF load, zero adjustment (DC only) DC to 65Hz, battery voltage 9V ± 0.1V.*

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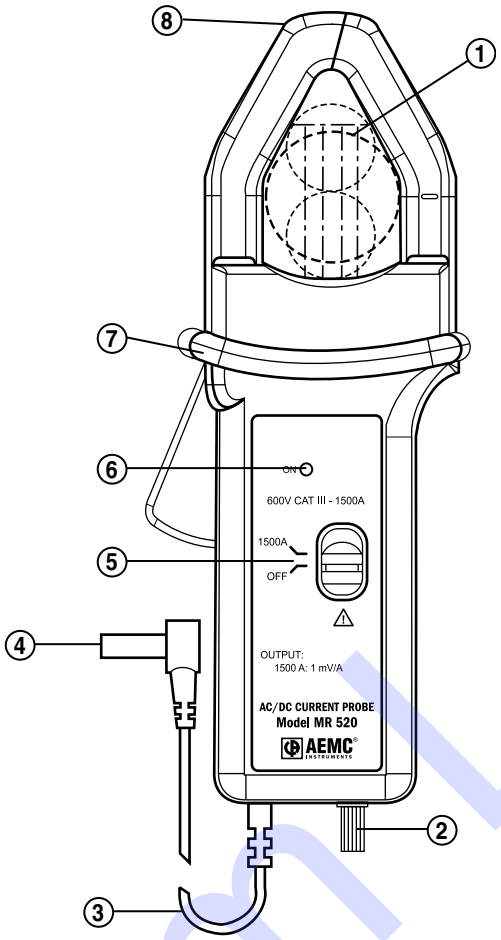


1. Conductor
2. Zero adjustment knob
3. Lead, 5 ft (1.5m)
4. Safety banana plug ø 4mm
5. Two-position range selection switch:
   - On/Off
   - 1500A (1mV/A)
6. Green light (on when battery voltage ≥6,5V)
7. Protective non-slip guard
8. Jaws

**Leads:**
Double/reinforced 5 ft (1.5m) lead with safety 4mm banana plug

| ORDERING INFORMATION | CATALOG NO. |
|---|---|
| **AC/DC Current Probe Model MR520** (Lead – 1mV/A – 1500A max). . . . . | **Cat. #1200.71** |
| Includes a user manual | |
| **Accessories (Optional)** | |
| Banana plug adaptor (to nonrecessed plug) . . . . . | Cat. #1017.45 |
| Adapter – Banana (Female) – BNC (Male) (XM-BB) . . . . . | Cat. #2118.46 |

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